Building a New Armor Force for the Marine Corps:

The High Risk of Deep Maneuver Will Require Tanks

by Lieutenant Colonel Randy B. Carlton

The Marine Corps is now entering a new century and a new strategic era. The stage is now set to propose a new armor organization. But what should be our vision? Let's first look at the vision of our Marine Commandant to ensure the right focus. Then we should consider the character of forces that military theorists think will be required to achieve operational and tactical success on the battlefields of tomorrow. These critical visions and force characteristics then support a proposal for reforming Marine armor to meet emerging threats and to serve future national military strategies.

The Marine Corps Commandant's vision is described in the Marine Corps Master Plan and in planning guidance he published in *Marine Corps Gazette*. He provides a great deal of information on what kind of Marine Corps we expect to have:

It is a Corps with limited resources; therefore, it must provide cost effective military capabilities. It must be a highly versatile fighting force prepared to handle a variety of missions. It will be a fully combined arms team, on the scene, ever ready to protect the nation's interest. It must be a force that can flourish under conditions of uncertainty and be ever ready to win our nation's first battles. The force must be expeditionary and prepared for immediate deployment. Forces must be able to operate from sea. Finally, the Marine Corps must be able to conduct forcible entry from the sea in the face of armed opposition.

Reserve forces must be able to quickly integrate and add combat power to a theater of conflict. These capabilities add up to strategic reach and operational and tactical success. Marine Air-Ground Task Forces (MAGTFs) must have sufficient force to respond rapidly and effectively and act as an enabling force for follow-on forces. These forces must be compact enough to respond rapidly and yet heavy enough to get the job done. The forces must provide relevant and easily integrated forces to the unified commanders. Furthermore, they must provide agile, adaptable, and combined arms force for Operational Maneuver from the Sea (OMFTS).

Finally, to support the National Military Strategy, the Marine Corps must have the forces to shape and respond across the spectrum of conflict.

The Character of Future Warfare

What will define the character of future forces and allow them to win quickly and decisively? The obvious answer, *knowledge and speed,* are the basic tenets of maneuver warfare and OMFTS. Knowledge and speed will be more deadly in the future than at any time in our history. A greater knowledge of the enemy and a greater speed of movement of forces will ensure tactical and operational success (the hope of information warfare), thereby achieving strategic objectives. As noted in the U.S. Army monograph, "Knowledge and Speed," the combination of knowledge, speed, the massing of the effects of fires, and mission-type orders will allow highly mobile forces to "enter an engagement more quickly, achieve decisions more rapidly, finish the fight faster, and reengage the enemy elsewhere." Employing speed of maneuver based on certain, detailed knowledge; using precision fires; and guided by mission type orders, commanders at the tactical level will function in compressed planning and operating cycles at very high tempos.

An integral part of the MAGTF, Marine armor forces within the ground combat element (GCE) can play a dynamic role in this era of warfare. They are near-perfect forces to achieve the commandant's vision and ensure a credible *shaping* and *responding* force. Unfortunately, today's tank and light armored reconnaissance (LAR) battalions are not optimally configured to achieve the end state desired by the commandant. Each battalion has great capabilities, but each also has limitations that prevent greater utility. For example, much has been written in the *Marine Corps Gazette* about the deep operational maneuver group. This is the LAR battalion's concept of conducting operations deep in the enemy's rear. While this is a great concept with tremendous potential, the force is too light and the risks are too high to warrant these operations. Such a deep operational strike group requires tanks! Why? Because deep operations are high-risk missions. They will require greater survivability of the force, and they will also need enhanced lethality. A deep operation force equipped with tanks would be more capable of handling the unexpected and will have a better chance of accomplishing the mission. Consider the recent advanced warfighting experiment, Hunter Warrior. At no time was the Red Force concerned about LAR units on the battlefield. Without tanks, these units posed little threat. Any heavy machine gun, shoulder-held anti-tank weapon, or mines could easily take them out. The Blue landing force of LAVs was not credible.

Can't we meet these needs with supporting arms?

While supporting arms are great, and should always be part of the plan because they can greatly enhance chances of success and survivability, maneuver commanders cannot always count on them due to the friction and fog of war, especially in certain kinds of weather. But commanders *can* count on those Marines and weapons they directly control. To achieve greater credibility in the MAGTFs, old paradigms must be broken. Tracked and light armored wheeled vehicles can not only operate together, they can also be organized together. Logistics and maintenance can be combined under one organization. Training tank and LAV crewmen within the same organization would not be difficult, since the missions and gunnery training are similar. There are challenges, but these obstacles can easily be overcome.

We need an armor force cohesively built to launch from a standing start and dynamic enough to *shape* and *respond* across

the spectrum of conflict. The Marine armor battalion proposed in the graphics is ideally configured to serve 21st century strategy needs. (See Figures 1 and 2)

Armor Battalion Mission

The mission of the armor battalion is to provide lethal armor-protected firepower, shock effect, and maneuver in the offense or defense in support of the ground combat element's participation in Marine air-ground task force amphibious, maritime prepositioning, and air contingency operations. The armor battalion would consist of a headquarters and service company (scout, mortar, air defense, and command & control platoons), four armor companies, (two armor and two tank platoons), and one tank company (three tank platoons).

The tank and LAR platoons would be downsized to three tank/LAVs per platoon. Given the capabilities of each of these vehicles (especially the M1A1 tank), a three-vehicle platoon is still extremely capable and lethal. The increase in maneuver units across the battlespace more than offsets the slightly reduced platoon. Another advantage for the platoon commander is that his span of control is increased. Many would argue that this increases his ability to fight his weapon system, command and lead his platoon, and coordinate supporting arms. I believe the overall gain contributes to maneuver warfare and OMFTS warfighting doctrines.

The available LAV 25mm chain gun with two antitank side launchers and the 120mm turreted mortar vehicle would greatly enhance the LAV's lethality and provide greater tactical flexibility. Extended range munitions currently being developed by the Army will greatly enhance the M1A1's capability to engage targets non-line-of-sight to 10 kilometers. These tank munitions may change the way tanks are tactically employed in the 21st century. The armor battalion's organization would best support future tank capabilities.

The LAV-scout, LAV-mortar, and LAV-air defense platoons (Blazer turret with 25mm Gatling gun and two Stinger pods that can carry four missiles each) provide a balanced offensive and defensive capability that greatly enhances the armor battalion's employment across the spectrum of conflict.

Additional mobility equipment would be added to the armor battalion, such as tank mine plows (already available in the tank battalions) and a platoon of six Grizzly in-stride/obstacle vehicles (planned allowance under procurement).

The LAV-command vehicle in each maneuver company headquarters serves as a dedicated fire support vehicle for coordinating supporting arms.

Concept of Employment

The armor battalion can be employed as an independent maneuver force. Task forces can be formed by attaching tank or armor companies to infantry battalions and infantry companies to the armor battalions. This cross-attachment procedure could extend to platoons within the infantry and armor/tank companies.

The armor battalion's combat support platoons, its four integrated combined tank/LAV companies, and its one tank company can perform all the offensive and defensive missions assigned to the separate tank and LAR battalions, including the guard and cover missions LAR cannot currently perform. This organization is structured to fight for information, conduct rapid maneuver, and coordinate supporting arms with greater *knowledge* (situational awareness) and greater *speed;* so it retains the offensive initiative for the GCE or MAGTF. As a result, the sum of these capabilities is greater than any of its parts.

The smaller size of the companies provides for greater *command and control, speed of movement,* and *agility* while *increasing* the number of maneuver companies from four to five in the battalion. Similarly, the smaller size of the platoons also confers the same advantages. This in turn provides greater flexibility to the MAGTF commander, as well as a smaller footprint and less logistical support for MAGTF employment.

This organization is a "natural" culmination of the close relationship the tank and LAR battalions have had with the Air Combat Element (ACE). The synergistic effect of this armor force operating with fixed/rotary wing aircraft, unmanned aerial vehicles, and its own indirect fire capability (mounted mortars) would be a powerful combined arms force in its own right.

Cost Effective Military Capabilities

Currently, the Marine Corps has two active duty tank battalions and three active duty LAR battalions. The new organization would produce four armor battalions, eliminating one battalion headquarters. The four battalions would be far more capable, each providing five maneuver companies to support the MAGTF. The reorganization of weapon systems can be done within the current structure of the Marine Corps, although it would require modifications to LAVs in order to obtain the de-

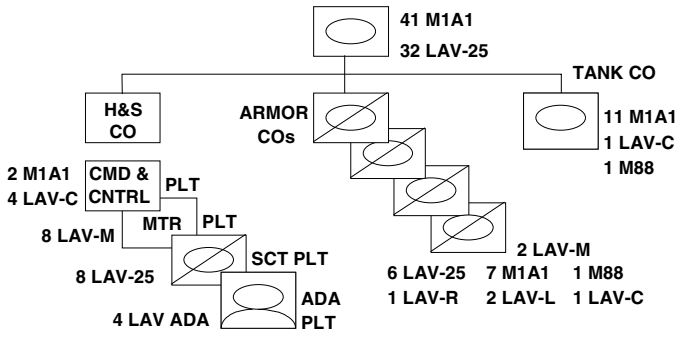

Figure 1: Proposed Armor Battalion

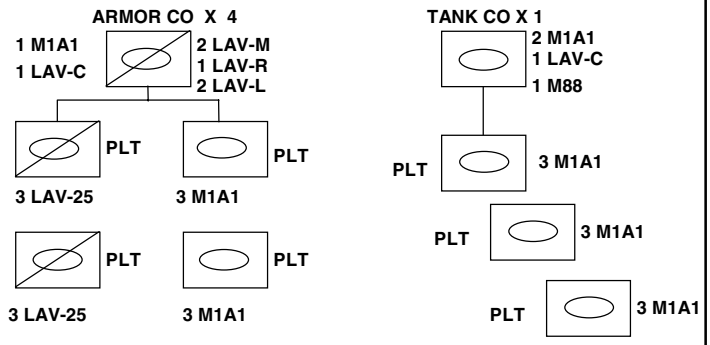

Figure 2. Proposed Armor Companies and Tank Company

WPN	C-CO (1)	C-BN (1)	C-BN X (2)	C-BN X (3)	C-MPF(1)	C-MPF (3)
M1A1	14	58	116	N/A	58	174
LAV(V)	N/A	N/A	N/A	N/A	27	81
LAV-25	14	60	120	180	27	81
LAV-C	1	8	16	24	N/A	N/A
LAV-M	2	8	16	24	N/A	N/A
LAV-R	1	6	12	18	N/A	N/A
LAV-L	3	16	32	48	N/A	N/A
LAV-AT	4	16	32	48	N/A	N/A
M88	2	12	24	N/A	5	15

WPN	F-CO (1)	F-BN (1)	F-BN X (4)	F-MPF (1)	F-MPFX(3)	PLUS	MINUS
M1A1	4X7 1X11	41	164	41	123	0	7
LAV (V)	N/A	N/A	N/A	44	132	N/A	N/A
LAV-25	6	32	128	44	132	52	0
LAV-C	1	8	32	N/A	N/A	N/A	8
LAV-M	2	16	64	N/A	N/A	N/A	40
LAV-R	1	6	24	N/A	N/A	N/A	6
LAV-L	2	12	48	N/A	N/A	N/A	N/A
LAV-AT	0	0	0	N/A	N/A	48	N/A
M88	1	6	24	5	15	N/A	N/A
					LAVs	+100	-54

Table 1:
Distribution of Vehicles

Notes:

(1) LAV(V): All LAV variants include LAV-25s. Distribution of LAV variants to MPF to be determined. LAV(V) & LAV-25 C or F - MPF columns include other variants which are listed as N/A.

(2) LAV-AT is not required in new armor battalion as tanks are available. Excess LAV-25 & LAV-ATs are available for transition to other variants.

(3) Reduction of M1A1s in Maritime Pre-positioned Forces (MPF) opens room for more LAV-(Vs).

(4) An adequate number of LAV hulls are available to meet requirements. However, LAV-25 & LAV-ATs would require transition to LAV-C/M/R to meet distribution requirements for a new armor battalion.

(5) Seven additional tanks are required for the active/MPF new armor battalion. The additional MPF tanks could come from the reserves and/or the maintenance float.

(6) Code: C stands for current Co/Bn/MPF.

(7) Code: F stands for future Co/Bn/MPF.

sired mix of weapon systems. Furthermore, it places more LAV variants on maritime pre-positioning ships, thus reducing the number of sorties required to deliver the force (see Table 1).

Additionally, with four armor battalions, the Marine Corps can deploy three armor battalions to the three maritime prepositioning ship's squadrons (MPSRONs) and support the two amphibious MEF-FWDs without calling up the reserves. This provides greater strategic and operational capability to the MAGTFs and warfighting theater commanders.

This combined tank/LAV force, organized as a cohesive fighting team, can conduct operations spanning the range of offensive and defensive missions. A highly mobile armored reconnaissance force provides greater situational awareness. Combined with the most lethal, mobile, and survivable tank on the battlefield, it facilitates organized velocity across the battlespace. The armor battalion will be able to quickly expand the battlespace by entering the battle more quickly, achieving decisions more rapidly, finishing the fight faster, and re-engaging the enemy elsewhere sooner.

The armor battalion fights as an integral player in the combined arms team of the MAGTF. Pure or task organized, provided with close air and/or artillery support, the armor battalion can easily conduct combined arms operations as an independent maneuver battalion.

The robust LAV mortar platoon (eight 81mm tubes) at the battalion level and the mortar section in each armor company gives the battalion its own artillery during those times when towed artillery is not positioned to provide support. The available LAV 120mm turreted mortar, with a range of 9+ kilometers (standard) or 12+ kilometers (rocket assisted), would truly enhance the armor battalion's ability to conduct high speed operations at greater distances in offensive or defensive operations.

This would truly be a "deep maneuver force," but one with the punch necessary to survive. It is also "compact enough to get there rapidly and heavy enough to get the job done," as called for in the commandant's vision.

This flexible, versatile, agile, and lethal information-seeking battalion would flourish in *uncertainty.* LAR and tank forces normally deal with mission-type orders and conduct operations on the move. This is an organization with a 360-degree capability to exploit *uncertainty.*

The four armor battalions would provide immediate deployable armored forces to all the MAGTFs. They would meet all armor force requirements. The two reserve tank battalions and one LAR battalion could remain unchanged, available for major theater war. These new armored forces would impact the MAGTF's capabilities at all levels, giving them greater *strategic,* operational, and tactical impact.

Amphibious ships can transport the M1A1 and LAV. They could be delivered over the horizon with air cushion landing craft (LCACs) that can carry one M1A1 and four LAVs. Also, the Landing Craft Utility (LCU) can carry two to three M1A1s and four LAVs. The cruise range of the M1A1 is 289 miles and the LAV is 375 miles. They could be re-supplied by air and/or from the sea.

Instead of Marine tanks being located in two battalions, awaiting the call to glory in the next major theater war, they would be integrated into four battalions making them much more accessible to Marine forces. Tanks would be placed in 20 companies, rather than the current eight.

This armor force organization would provide greater operational and tactical support to the MAGTFs, who are the true strategic instruments of the Marine Corps. The armor battalion

is easily task organized and can be quickly integrated into any operation.

The employment of the armor battalion generally remains the same. However, reconfiguration provides two major advantages: The armor battalions can conduct all offensive and defensive missions as one cohesive fighting force, and the battalion and companies' organization provide a more capable maneuver and reconnaissance force for the MAGTF while remaining a powerful armor force in its own right. The net result is a force possessing greater knowledge and speed.

In Marine Expeditionary Unit (Special Operations Capable) [MEU(SOCs)], employment generally remains the same. Tanks and LAVs deploy as separate platoons. However, with the new armor company mix of LAVs and tanks, an entire armor or tank company may be able to deploy. Having an armor or tank company support the MEU(SOC)s would greatly enhance their combat capabilities and provide them a fourth company for combat employment.

The MEU(SOC)s, forward deployed, are truly one of the nation's instruments for shaping a developing situation. Enhanced combat power at this level would have tremendous tactical impact, but would also affect the operational level, resulting in *strategic implications.* The armor company with a MEU(SOC) is not going to win any wars, but it will win battles. To the Marines at the tip of the spear, an armor company or platoon may mean the difference between life and death.

Conclusion

The new armor battalion is a more relevant force for an uncertain and unstable environment. It is definitely the type of armor force the 21st century demands. In a fiscally constrained environment, it allows the Marine Corps to obtain the greatest utility from its tank and LAV force. Finally, our warfighting doctrine demands that we organize to obtain the greatest shaping and responding force in order to impact the three levels of war. This armor force is the right size, with the right mix of combat weapons (lethal, highly mobile, survivable, and sustainable) to ensure the Marine Corps MAGTFs can meet the national military strategy.

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